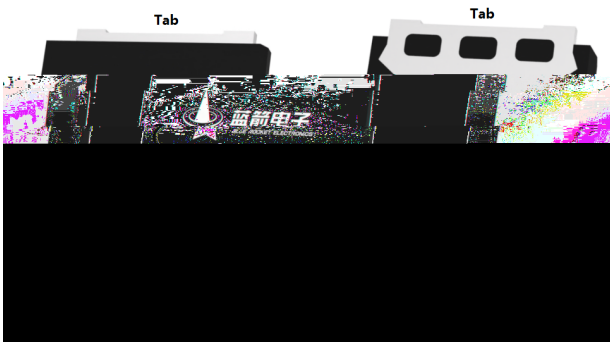
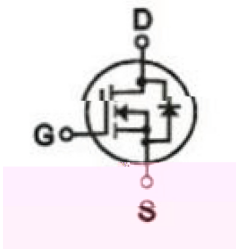


Rev.C Jan.-2026

LFP5AK5x6 N
N-Channel MOSFET in a LFP5AK5x6 Plastic Package.

$V_{DS} (V) = 30V$ $I_D = 300A$
 $R_{DS(ON)} @ 10V$ 0.55m Ω (Typ. 0.48m Ω)
 $R_{DS(ON)} @ 4.5V$ 0.95m Ω (Typ. 0.82m Ω)
HF Product.

DC-DC
Motor drivers, DC - DC Converter.

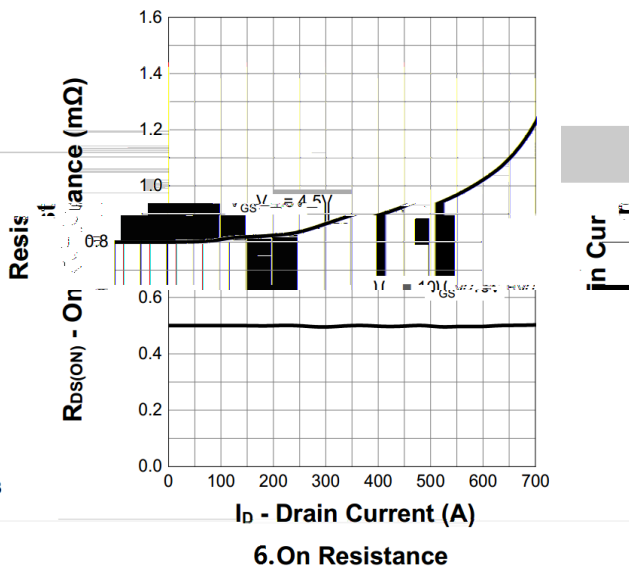
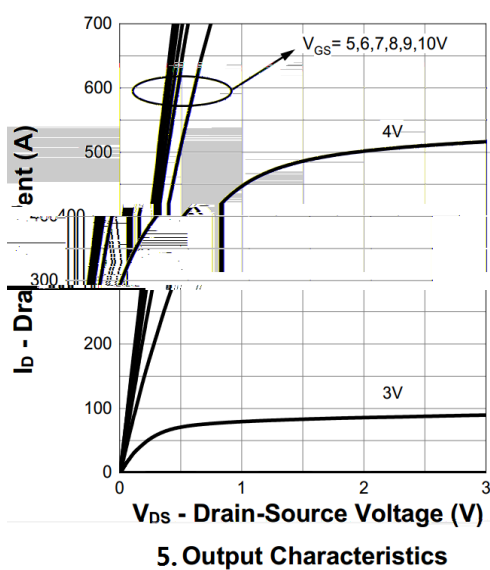
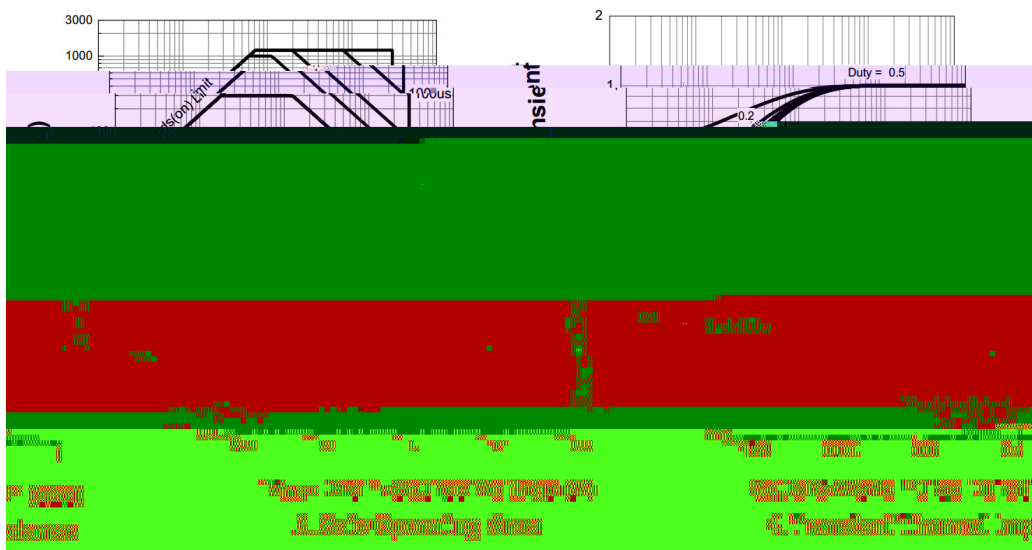
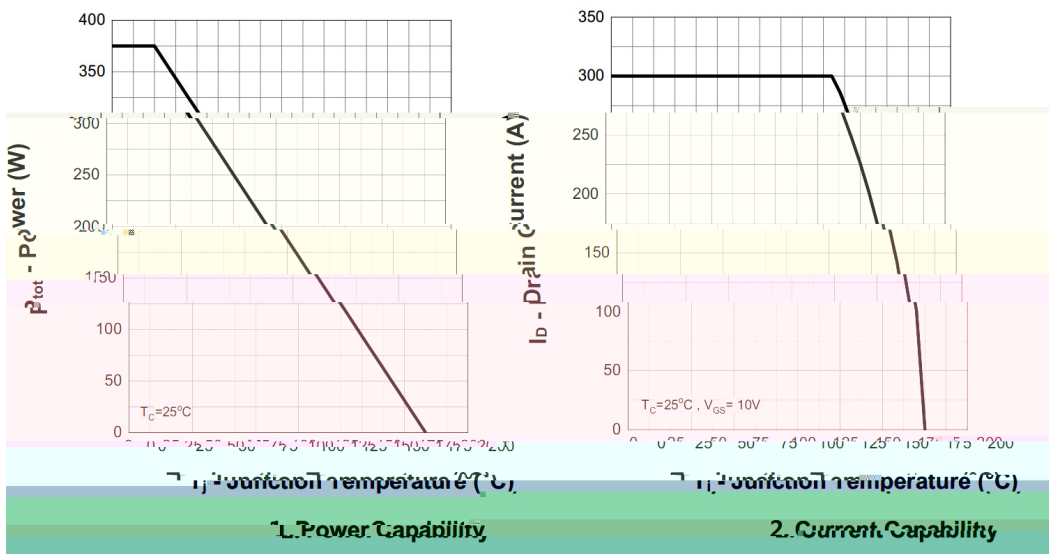


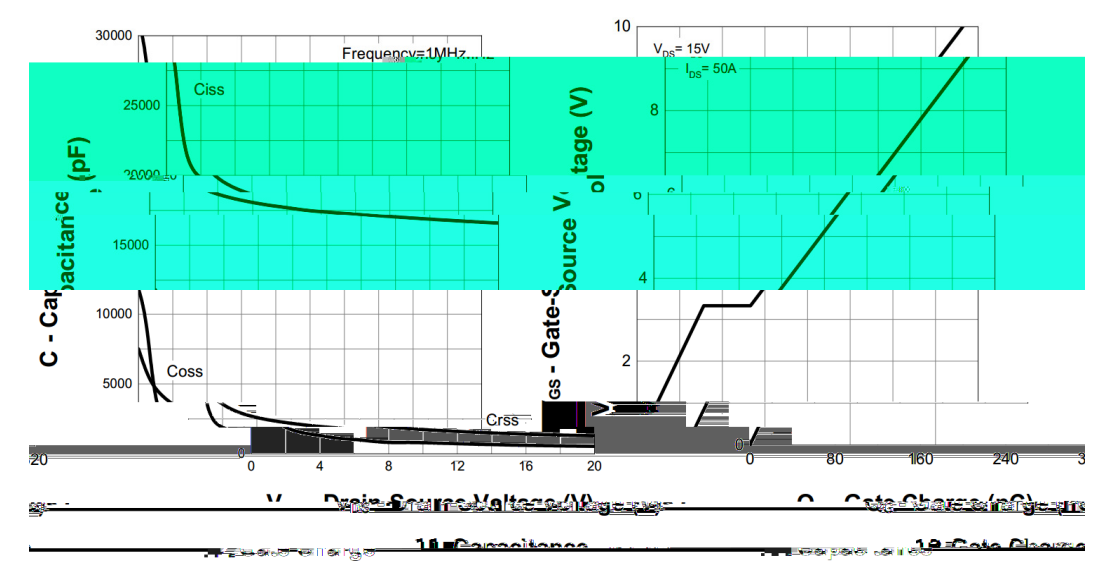
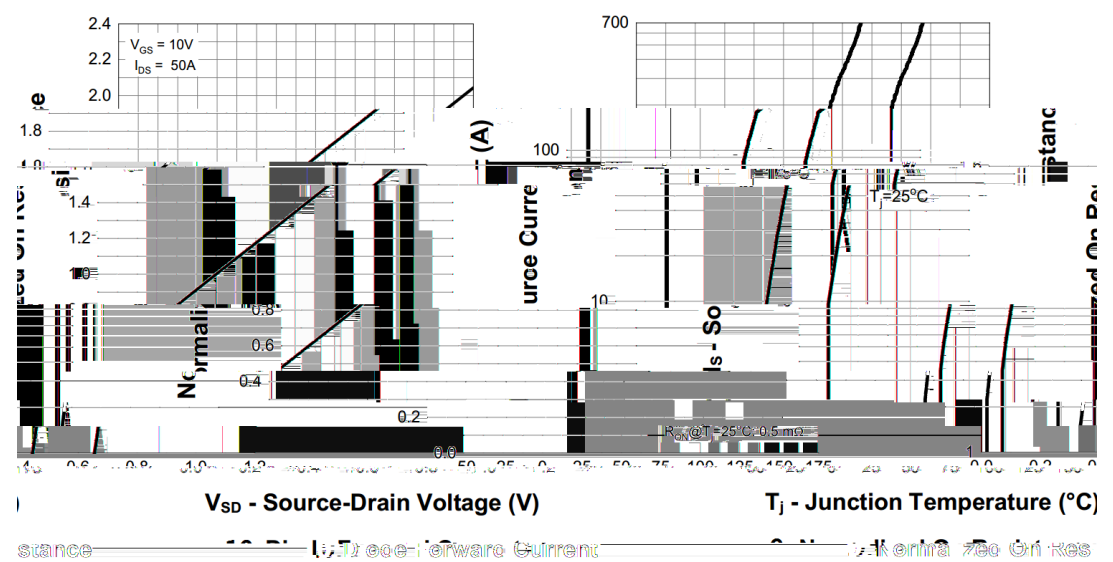
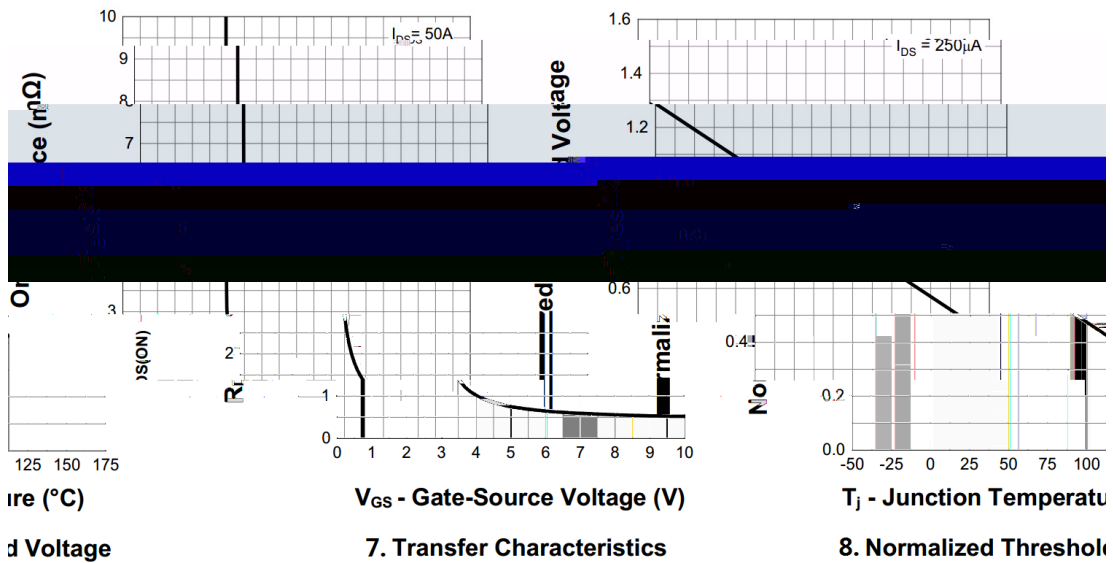
PIN1 2 3 S PIN4 G Tab D

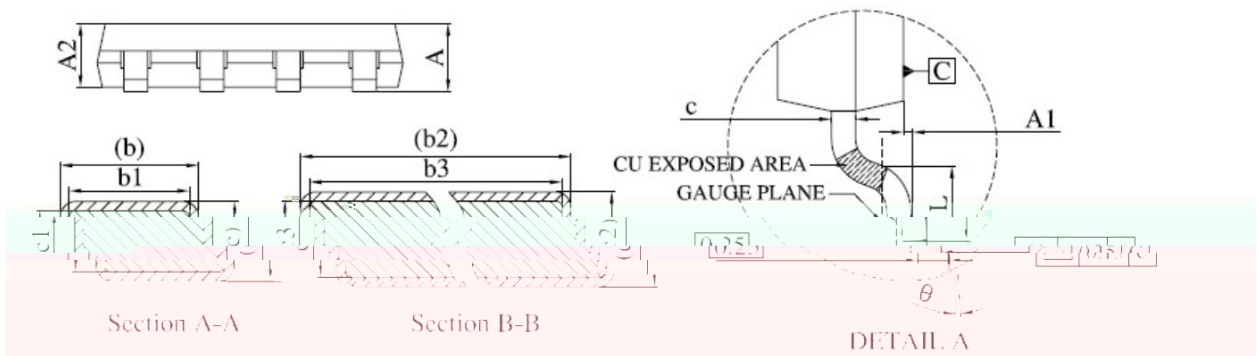
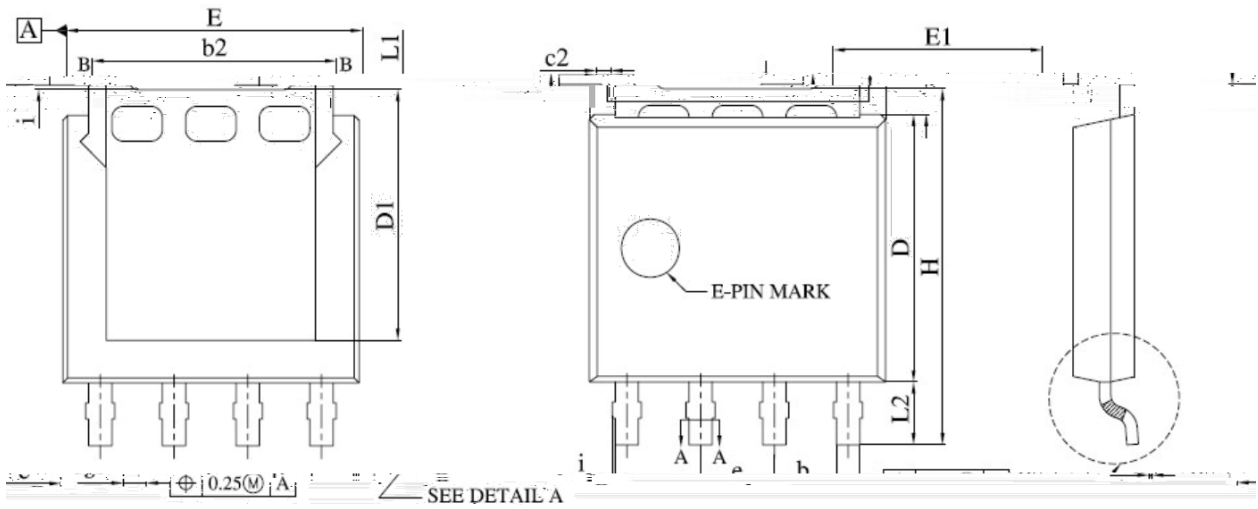
See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Drain Current	$I_D(T_C=25^\circ\text{C})$	300	A
	$I_D(T_C=100^\circ\text{C})$	300	A
Pulsed Drain Current	I_{DM}	1200	A
Gate-Source Voltage	V_{GS}	± 20	V
Single Pulsed Avalanche Energy $L=1.0\text{mH}$	E_{AS}	1624	mJ
Continuous-Source Current	I_S	300	A
Total Power Dissipation	$P_D(T_C=25^\circ\text{C})$	375	W
Junction and Storage Temperature Range	T_J, T_{STG}	-55 to 175	

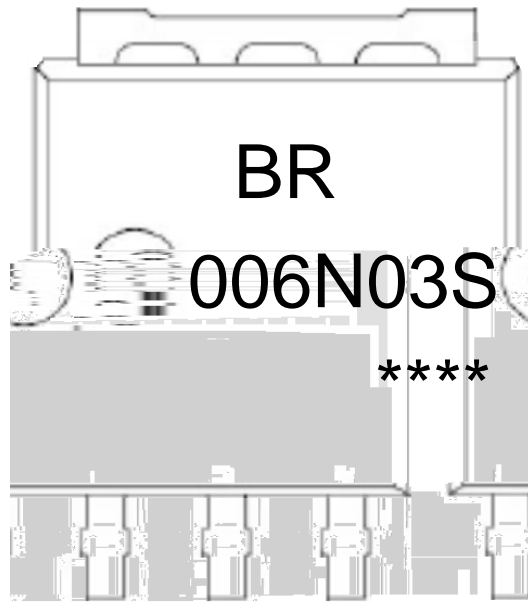
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	$V_{GS}=10V, V_{DS}=15V, I_D=50A$		306		nC
Gate Source Charge	Q_{gs}			63		
Gate Drain Charge	Q_{gd}			44		
Turn-On Delay Time	$t_{d(on)}$	$V_{GEN}=10V V_{DS}=15V$ $R_L=0.3\Omega R_G=3.9\Omega$ $I_{DS}=50A$		23		ns
Turn-On Rise Time	t_r			151		
Turn-Off Delay Time	$t_{d(off)}$			249		
Turn-Off Fall Time	t_f			127		







Symbol	Dimensions In Millimeters		Symbol	Dimensions In Millimeter	
	MIN..	MAX..		MIN..	MAX..
A	1.00	1.30	F	4.95	5.30
A1	0.00	0.15	F1	3.50	3.70
A2	0.98	1.12	e	1.27 BSC.	
b	0.35	0.50	H	5.95	6.35
b1	0.32	0.46	i	-	0.10
b2	4.02	4.41	L	0.40	0.50
b3	4.00	4.37	L1	0.27	0.30
c	0.19	0.25	L2	0.80	1.00
c1	0.17	0.23	θ	0°	8°
c2	0.24	0.30			
c3	0.22	0.28			
D	4.45	4.70			
D1	-	4.45			



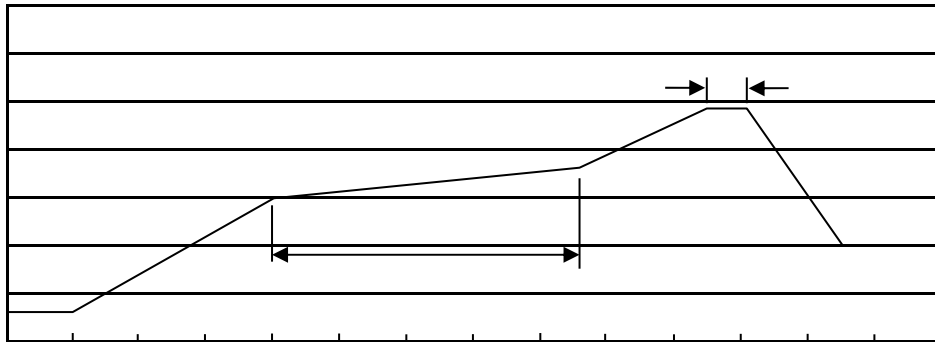
006N03S

Note

BR: Company Code

006N03S: Product Type Code

****: Lot No. Code, code change with Lot No.

Temperature Profile for IR Reflow Soldering(Pb-Free)

Note:

- | | | | | | |
|---|-----|-----|----|----------|---|
| 1 | 150 | 180 | 60 | 90sec; | 1.Preheating:150~180 , Time:60~90sec. |
| 2 | 245 | 5 | 5 | 0.5sec; | 2.Peak Temp.:245 5 , Duration:5 0.5sec. |
| 3 | | | 2 | 10 /sec. | 3. Cooling Speed: 2~10 /sec. |

260 5 10 1 sec. Temp.:260±5 Time:10±1 sec

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
LFPAK5x6	3,000	2	6,000	5	30,000	13"x12	356x335x50	385x285x358

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
LFPAK5x6	5,000	2	10,000	5	50,000	13"x12	356x335x50	385x285x358

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